

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An exposure apparatus that exposes a pattern of a reticle onto a substrate, the exposure apparatus comprising:

a projection system to project the pattern onto the substrate;

a holder connected to the projection system to hold the projection system;

a ~~main frame~~ support member that ~~mounts~~ supports the projection system by ~~means of~~ the holder;

a stage that holds and moves one of the substrate and the reticle, the stage is not supported by the support member;

a damper that isolates the projection system from the stage;

a detector to detect information concerning displacement of the projection system;

an actuator arranged on the holder; and

a driver connected to the actuator to drive the actuator in response to a detection ~~results~~ result of the detector to suppress a strain of the holder resulting from a resonance of the projection system.

2. (Original) The exposure apparatus of claim 1, wherein the actuator includes piezoelectric elements.

3. (Original) The exposure apparatus of claim 1, wherein the detector is arranged on at least one of the projection system and the holder.

4. (Original) The exposure apparatus of claim 1, wherein the detector includes an acceleration sensor.

5. (Original) The exposure apparatus of claim 1, wherein the detector includes a distortion sensor.
6. (Original) The exposure apparatus of claim 1, wherein the detector is arranged in a vicinity of the holder.
7. (Original) The exposure apparatus of claim 1, wherein the actuator is arranged in a vicinity of a relatively weak part of the holder.
8. (Canceled)
9. (Original) The exposure apparatus of claim 1, wherein the detector includes an acceleration sensor mounted to the projection system and a distortion sensor mounted to the holder.
10. (Original) The exposure apparatus of claim 1, wherein the actuator is mounted on an adapter plate that is releasably attached to the holder.
11. (Original) The exposure apparatus of claim 1, wherein the projection system is a projection optical system.
12. (Canceled)
13. (Canceled)
14. (Currently Amended) The exposure apparatus of ~~claim 13~~ claim 1, wherein the stage is a substrate stage that holds and moves the substrate.
15. (Currently Amended) The exposure apparatus of claim 14, wherein the exposure apparatus is a scanning exposure apparatus, and the ~~drive system of the substrate stage moves the substrate stage~~ while the pattern is projected onto the substrate.
16. (Currently Amended) The exposure apparatus of ~~claim 13~~ claim 1, wherein the stage is a reticle stage that holds and moves the reticle.

17. (Currently Amended) The exposure apparatus of claim 16, wherein the exposure apparatus is a scanning exposure apparatus, and the ~~drive system of the~~ reticle stage moves ~~the reticle stage~~ while the pattern is projected by the projection system.

18. (Currently Amended) A method of making an exposure apparatus that exposes a pattern of a reticle onto a substrate, the method comprising:

providing a projection system to project the pattern onto the substrate;

providing a holder connected to the projection system to hold the projection system;

providing a ~~main frame that mounts~~ support member that supports the projection system by ~~means of~~ the holder;

providing a stage that holds and moves one of the substrate and the reticle, the stage is not supported by the support member;

providing a damper that isolates the projection system from the stage;

providing a detector to detect information concerning displacement of the projection system;

providing an actuator on the holder; and

providing a driver connected to the actuator to drive the actuator in response to a detection results-result of the detector to suppress a strain of the holder resulting from a resonance of the projection system.

19. (Original) The method of claim 18, wherein the actuator includes piezoelectric elements.

20. (Original) The method of claim 18, wherein the detector is arranged on at least one of the projection system and the holder.

21. (Original) The method of claim 18, wherein the detector includes an acceleration sensor.

22. (Original) The method of claim 18, wherein the detector includes a distortion sensor.

23. (Original) The method of claim 18, wherein the detector is arranged in a vicinity of the holder.

24. (Original) The method of claim 18, wherein the actuator is arranged in a vicinity of a relatively weak part of the holder.

25. (Canceled)

26. (Original) The method of claim 18, further comprising mounting the actuator on an adapter plate that is releasably attached to the holder.

27. (Canceled)

28. (Currently Amended) The method of ~~claim 27~~ claim 18, wherein the stage is a substrate stage that holds and moves the substrate.

29. (Currently Amended) The method of ~~claim 27~~ claim 18, wherein the stage is a reticle stage that holds and moves the reticle.

30. (Currently Amended) A method of exposing a pattern of a reticle onto a substrate through a projection system, the method comprising:

holding the projection system with a holder;

~~mounting-supporting~~ the projection system to a ~~main frame by means of~~
support member by the holder;

~~moving a stage that holds one of the substrate and the reticle, the stage is not~~
supported by the support member;

~~isolating the projection system from the stage;~~

detecting information concerning displacement of the projection system; and

driving an actuator mounted on the holder in response to the detected information to suppress a strain of the holder resulting from a resonance of the projection system.

31. (Original) The method of claim 30, wherein the actuator includes piezoelectric elements.

32. (Original) The method of claim 30, wherein the information concerning displacement of the projection system is detected by a detector arranged on at least one of the projection system and the holder.

33. (Original) The method of claim 30, wherein the information concerning displacement of the projection system is detected by an acceleration sensor.

34. (Original) The method of claim 30, wherein the information concerning displacement of the projection system is detected by a distortion sensor.

35. (Original) The method of claim 30, wherein the information concerning displacement of the projection system is detected by a detector arranged in a vicinity of the holder.

36. (Original) The method of claim 30, wherein the actuator is arranged in a vicinity of a relatively weak part of the holder.

37. (Canceled)

38. (Original) The method of claim 30, wherein the actuator is mounted on an adapter plate that is releasably attached to the holder.

39. (Canceled)

40. (Currently Amended) The method of ~~claim 39~~ claim 30, wherein the stage is a substrate stage that holds and moves the substrate.

41. (Currently Amended) The method of ~~claim 39~~ claim 30, wherein the stage is a reticle stage that holds and moves the reticle.

42. (Currently Amended) The exposure apparatus of ~~claim 12~~ claim 1, further comprising a ~~transaction-reaction~~ system that ~~transacts-manages~~ a reaction force exerted by a movement of the stage.

43. (Currently Amended) The method of ~~claim 27~~ claim 18, further comprising:
providing a ~~transaction-reaction~~ system that ~~transacts-manages~~ a reaction force exerted by a movement of the stage.

44. (Currently Amended) The method of ~~claim 39~~ claim 30, further comprising:
~~transacting-managing, in a reaction system,~~ a reaction force exerted by a movement of the stage.

45. (Currently Amended) An exposure apparatus that exposes a pattern of a reticle onto a substrate, the exposure apparatus comprising:

a projection system to project the pattern onto the substrate;

a support member to support the projection system;

~~_____ a stage that holds and moves one of the substrate and the reticle, the stage is not supported by the support member;~~

~~_____ a damper that isolates the projection system from the stage;~~

a detector to detect information concerning displacement of the projection system;

an actuator arranged on the support member; and

a driver connected to the actuator to drive the actuator in response to a detection result of the detector to suppress an influence of resonance of the projection system.

46. (Previously Presented) The exposure apparatus of claim 45, wherein the driver suppresses a strain of the support member.

47. (Previously Presented) The exposure apparatus of claim 45, wherein the support member comprises a flange.

48. (Previously Presented) The exposure apparatus of claim 45, wherein the actuator includes piezoelectric elements.

49. (Previously Presented) The exposure apparatus of claim 45, wherein the detector is arranged on at least one of the projection system and the support member.

50. (Previously Presented) The exposure apparatus of claim 45, wherein the detector includes an acceleration sensor.

51. (Previously Presented) The exposure apparatus of claim 45, wherein the detector includes a distortion sensor.

52. (New) The exposure apparatus of claim 45, wherein the stage is a substrate stage that holds and moves the substrate.

53. (New) The exposure apparatus of claim 45, wherein the stage is a reticle stage that holds and moves the reticle.